

[Exhibit 12]

## **Non-Interference Compliance**

Regarding Facility id 155964

Channel 290

### **Description of Exhibit 12 Contents**

This exhibit demonstrates that the proposed facility complies with contour overlap and interference protection provisions in all of the applicable rule sections and that this application for a construction permit is in full compliance with 47 C.F.R. § 74.1204.

**Let it be noted that should any actual real world interference occur, the applicant acknowledges that it will promptly suspend operation of this translator in accordance with 47 C.F.R. § 74.1203.**

Page 2 of this exhibit is an explanation of the method used to demonstrate compliance with contour overlap and interference provisions based on 47 C.F.R. § 74.1204(d), which states:

*[A]n application otherwise precluded by this section will be accepted if it can be demonstrated that no actual interference will occur due to intervening terrain, lack of population or such other factors as may be applicable.*

Page 3 of this exhibit contains the tabulated data from the interference analysis, which shows all stations whose protected contours come within 50 km of the 34 dB $\mu$  F(50,10) contour of the proposed translator. These tabulated values were calculated using data from the FCC's CDBS files and 30 arc second terrain data. The column labeled "Adj" shows the number of channels difference between the entry and the proposed translator. The column labeled "Dist" shows the distance in km. The column labeled "Overlap" shows the area of contour overlap in square kilometers.

Page 4 of this exhibit is a portion of a USGS 1:24,000 scale 7.5 minute quadrangle at full scale with the calculated area of interference overlaid. The sheet includes the quadrangle name and measurement scale at the bottom-left corner (note: "Mt" refers to meters). The area of interference was calculated using the free space equation and 120 radials.

**Note: The quadrangle indicates the presence of county or city roads in the area of predicted interference. It is apparent that these are not major roads, e.g. interstate highways, as described in the Living Way decision and therefore "lack of population" is demonstrated.**

## Compliance with 47 C.F.R. § 74.1204(d)

All authorized second and third adjacent stations with which the proposed translator has contour overlap are tabulated below. Column four show the station's signal level at the proposed translator's tower site, and column five gives the minimum value within the entire standard interfering contour of the proposed translator (100 dBμ for most classes, 94 for class B, 97 for class B1). The minimum second or third adjacent F(50,50) contour within the proposed translator's standard interfering contour was used to calculate the proposed translator's actual "worst-case" interfering contour.

<b>Application_id</b>	<b>File Number</b>	<b>Callsign</b>	<b>Contour at Tower</b>	<b>Min. Contour</b>
17868	BLH19800212AD	WYTE	81.5	81
	Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour			<b>81</b>

FCC 02-244 at Section II.A.5 states that "when demonstrating that 'no actual interference will occur due to . . . other factors,' pursuant to Section 74.1204(d), an applicant may use the undesired-to-desired signal ratio method." The undesired-to-desired ratio for second and third adjacent stations required by § 74.1204(a) is 40 dB. Since the minimum protected contour strength within the proposed translator's standard interference contour is **81 dBμ**, this makes the proposed translator's worst-case interfering contour **121 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **55.9 m** from the transmit antenna.

The interfering contour of the proposed translator was calculated for 120 radials and plotted on the pertinent portion of a USGS quadrangle (page 4 of this exhibit). As demonstrated on the quadrangle, there are no populated structures or highways within the area of interference (Note: FCC 02-244 at Section II.A.6 states that USGS quadrangles "have been recognized as acceptable to demonstrate lack of population"). Hence, in accordance with 47 C.F.R. § 74.1204(d) and the clarification provided by the FCC in the decision *Re: Living Way Ministries* (FCC 02-244), a lack of population has been demonstrated within the area of interference and this application is therefore in full compliance with 47 C.F.R. § 74.1204.

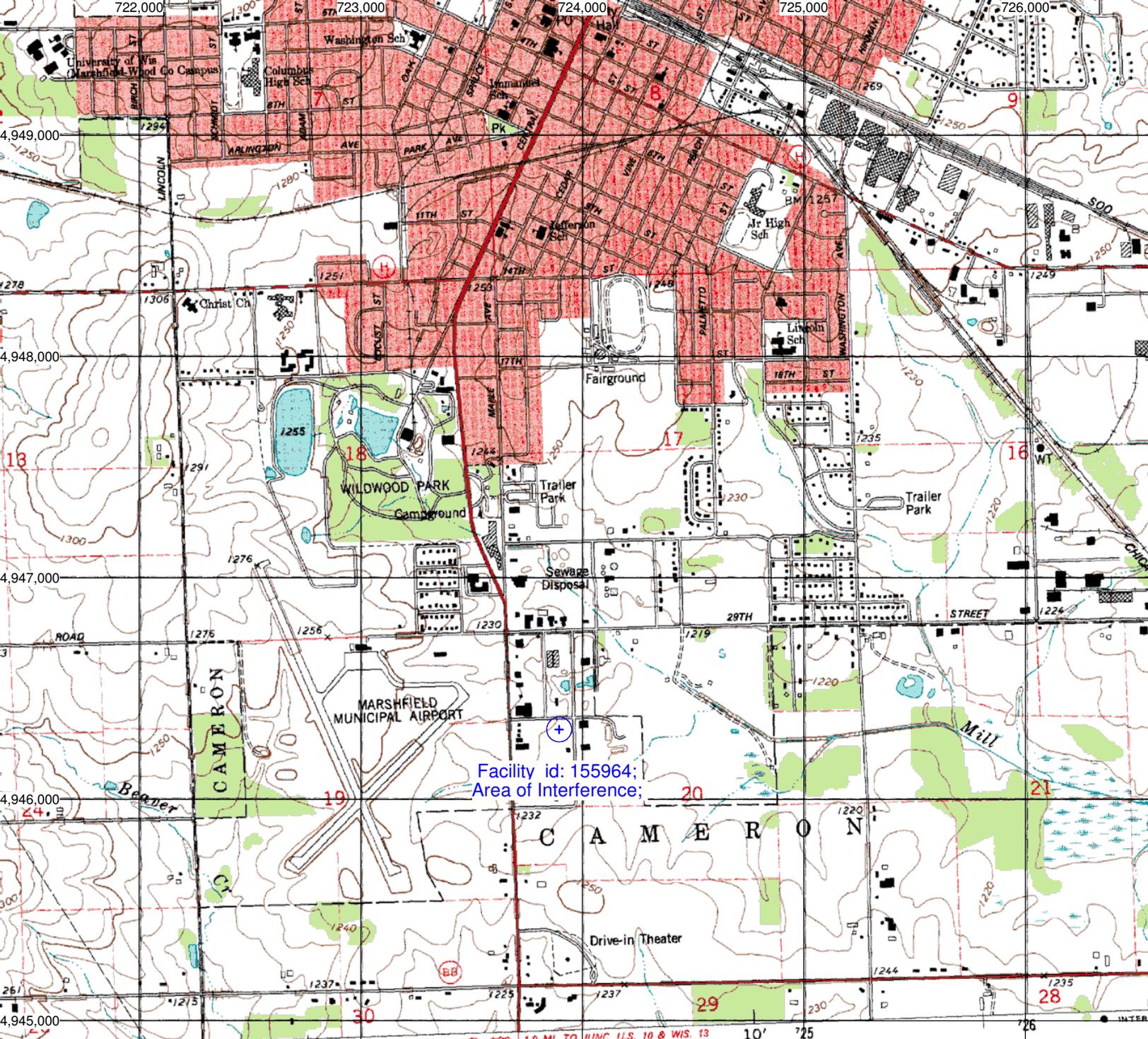
**Antenna Manufacturer:** ERI  
**Antenna Model:** 100-1  
**CORAGL:** 11 m  
**Maximum ERP:** 0.08 kW  
**Interfering Contour:** 121 dBμ  
**Max Int. Contour Distance:** 55.9 m

**Note: The quadrangle indicates the presence of county or city roads in the area of predicted interference. It is apparent that these are not major roads, e.g. interstate highways, as described in the Living Way decision and therefore "lack of population" is demonstrated.**

**Adjacent Channel Study  
For Station W290AZ, Facility\_id: 155964**

**Co-channel through third adjacent:**

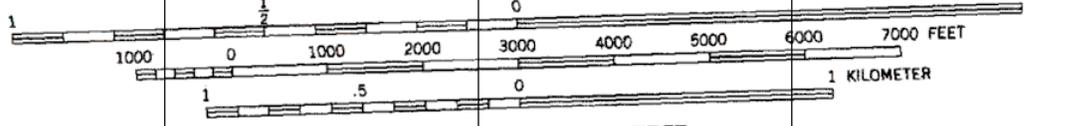
Application_id	Facility_id	Prefix	ARN	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Overlap
17868	24444	BLH	19800212AD	WYTE	MARATHON MEDIA MIDWEST, LP	C1	MARSHFIELD	WI	LIC	100	596	293	3	25.6	0.4774
676438	85832	BLH	20030808ABD	WUSP	TODD P. ROBINSON D/B/A KOOSA BROADCASTIN	A	NEKOOSA	WI	LIC	6	389	288	2	31.8	0
191046	57267	BLH	19931020KB	WDKM	ROCHE-A-CRI BROADCASTING	A	ADAMS	WI	LIC	6	388	291	1	80.4	0
241984	7874	BLH	19970228KA	WCFW	BUSHLAND RADIO SPECIALTIES/WCFW	C3	CHIPPEWA FALLS	WI	LIC	25	383	289	1	91.4	0
255826	49814	BLH	19971022KD	WACD	MARATHON MEDIA OF WISCONSIN, L.P.	C3	ANTIGO	WI	LIC	10	527	291	1	96.1	0
627846	432	BMLH	20030303ABY	WRLO-FM	NEWRADIO GROUP, LLC	C1	ANTIGO	WI	LIC	100	659	287	3	115.2	0
1103026	49814	BPH	20061205ACN	WACD	RESULTS BROADCASTING, INC.	C2	ANTIGO	WI	APP	50	649	291	1	115.4	0



Facility id: 155964;  
Area of Interference;

12'30" 722 R2E R3E (LAKE MANAKIKI) 2973 II SW 1.9 MI. TO JUNC. U.S. 10 & WIS. 13 10' 725 726 NEILLSVILLE 24 MI.

SCALE 1:24 000



CONTOUR INTERVAL 10 FEET  
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Primary highway, hard surface  
Secondary highway, hard surface  
Interstate



THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS FOR SALE BY U. S. GEOLOGICAL SURVEY, RESTON, VIRGINIA 22092 AND WISCONSIN GEOLOGICAL AND NATURAL HISTORY SURVEY, MADISON, WISCONSIN 53706. A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST